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Chair

Mr. Dan Ruimy

Standing Committee on Industry, Science and Technology

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● (1530)

[*English*]

The Chair (Mr. Dan Ruimy (Pitt Meadows—Maple Ridge, Lib.)): Welcome, everybody, to meeting number 94 of the Standing Committee on Industry, Science and Technology. We are continuing our study of broadband connectivity in rural Canada.

Today, we have a fun group of participants joining us. All the way from Montcalm Télécom et Fibres Optiques, we have Louis-Charles Thouin, president, and warden of the Regional County Municipality of Montcalm; as well as Pierre Collins, project manager.

Mr. Pierre Collins (Project Manager, Montcalm Télécom et fibres optiques): Hello.

The Chair: We have from SaskTel, John Meldrum, vice-president, and corporate counsel, regulatory affairs. We all met him earlier in Regina. We had breakfast with him, actually.

We have from SouthWestern Integrated Fibre Technology, Geoff Hogan, chief executive officer; and Donghoon Lee, research partner, economist, R2B2.

Is that really R2B2?

Dr. Donghoon Lee (Research Partner, Economist, R2B2, University of Guelph, SouthWestern Integrated Fibre Technology): Yes.

The Chair: Star Wars, the University of Guelph.

Voices: Oh, oh!

The Chair: We also have from the Wubim Foundation, William Chen, director.

Welcome, everybody. You each have seven minutes to present and then we will go to questions.

We'll start with the folks from Montcalm Télécom.

You're the first. Thank you. You have up to seven minutes.

[*Translation*]

Mr. Pierre Collins: If I understand correctly, you want us to present our project and to talk about what we are doing in our rural areas.

More than three years ago, the RCM of Montcalm began a project to deploy a fibre-optic network to homes. Fifteen years ago, as part of a provincial program called Villages branchés, the RCM had already installed a hundred or so kilometres of fibre-optic cable in order to connect the school boards. So it wanted to use that network and make it available to its residents.

The RCM did a detailed study to find out the number of residents and residences in its territory that were underserved. That turned out to be 7,100 of 22,000 residences. Those figures were very different from the ones that the Government of Canada had. Local service providers claimed that the region was being well served, but our audit of the municipality's residents showed us that the minimum speed was not being achieved.

The project had financial and technological aspects. The RCM obtained funding of $12.9 million through the usual processes for that kind of installation. The amount was approved by the Quebec Ministère des Affaires municipales et de l'Occupation du territoire and by the RCM.

A major federal grant program, called Connecting Canadians—Digital Canada 150, came to support the project in quite a significant way. We had submitted a grant application to the department of the day, known as Industry Canada. The Montcalm project was selected for its excellence. We received grants of $4.7 million, the largest amount to be awarded to a company that did not exist at the time. The RCM was actually still in the process of establishing a not-for-profit organization that would build the network.

This project is close to the RCM's heart. It is being carried out by and for all residents and it is being led by a not-for-profit organization of four non-elected and four elected officials. The project is currently under way.

We are perhaps in a good position to explain one matter of importance to us, an operational constraint on our project: rights of way. For more than 30 years, the field of telecommunications in the country has become increasingly deregulated, as illustrated, for example, by the historic decisions made in 1985, 1987, 1990 and 1992. The CRTC looks very favourably on competition in telecommunications and innovation in Canada. But one obstacle remains: rights of way. Support structures belong to the legal owners, those who built the network and who control access to it.

The number one rule for success in telecommunications is to obtain the right of way. It is still very difficult for us to get access to support structures in our province because all the poles are equally divided between Hydro-Québec and Bell Canada. We also have to modernize those networks at our own expense: the last group to ask for access to them is responsible for the costs of renovating them. That regularly requires us to bury the fibres and to use methods of communication and transmission that are much more costly. We are therefore prevented from progressing as fast and as far as we would like.

I do not know how much time I have left, and I could probably keep talking to you about this for many hours.

But that is basically where we are. The network is being built. The RCM decided that it would have one, and it will indeed have a network bringing optical fibre to the home.

Would you like to add anything, Mr. Thouin?

● (1535)

Mr. Louis-Charles Thouin (President, Warden, Regional County Municipality of Montcalm, Montcalm Télécom et fibres optiques): We are talking about 535 kilometres of fibres. As Mr. Collins said, there was already a network of 100 kilometres. We added 535 kilometres to that in order to connect every house and serve every resident who is poorly served or underserved at the moment.

That gives you a good summary of the general situation.

Mr. Pierre Collins: It was a very quick summary.

Mr. Louis-Charles Thouin: You seem to know the file well.

The Chair: Thank you very much.

[*English*]

We'll now move to John Meldrum from SaskTel in Regina.

You have up to seven minutes.

Mr. John Meldrum (Vice-President, Corporate Counsel and Regulatory Affairs, SaskTel): Thank you for the opportunity to appear.

I've had the pleasure of working for SaskTel for over 40 years, 30 of which have been in a senior executive capacity. I saw our crown corporation deliver individual line service, cellular, and Internet throughout the province for the very first time. As the most rural province in Canada, we have a very good understanding of the challenges that arise in meeting the Internet and cellular needs of our rural residents.

Before delving into those challenges, I want to address the issue of acceptable high-speed Internet service. In that regard, we support the commission's target of fifty-ten, but would note that ultimately what you think of that goal depends on where you are today with regard to Internet connectivity. For example, if you're relying solely on satellite Internet, or if your service is subject to congestion, most of the people we speak to in Saskatchewan would call fifty-ten a pipe dream, and would settle for a consistent five-one or ten-two service. We note that the CRTC acknowledges the challenges of achieving fifty-ten for rural customers and suggests that rural improvements may take up to 15 years. That is far too long a time frame. Rural Canada needs better Internet service today, not up to 15 years from now.

There are realities that we've overcome to provide service. As I said, Saskatchewan is the most rural province in Canada due to the wide open spaces between most rural residents. It is hard to bring this to life for people familiar with their own rural areas in eastern Canada. Basically, think about the distances between farms and houses in your rural areas that you're familiar with and multiply those distances by a factor of about seven.

We recently took DSL Internet to Kendal, Saskatchewan, a village of 77 people. While Kendal is in the middle of productive farmland, with other towns and villages dotting the highway every 13 kilometres, the biggest town around is Indian Head, with 1,900 people, some 35 kilometres away on a grid road. After that it's Regina, which is 80 kilometres away. The issue for us is that in telecommunications, the lack of density drives up capital costs per person served, and distances between groups of people drive up capital costs. We've overcome many things to meet the current situation in Saskatchewan, where virtually any community of any size has wireline Internet service, virtually any town of a decent size has adequate cellular service, and we've recently announced a plan to expand cellular service to those small towns.

The backbone, the backhaul, is a building block for our Internet service. We continue to invest heavily in backbone facilities, facilities that are all made available to competitors at prices that have what I would call the “oversight of regulation”. This job will never be 100% complete, as the data traffic will continue to grow, and we will continue to have to invest. But today, other than a few uneconomic backbone routes that are part of a Connect to Innovate application, our backbone will be meeting our current needs until we need more capacity.

For non-cellular, the next biggest challenge is “last-mile” facilities. If it's wired service, then we require the installation of more fibre, more cabinets and, ultimately, to meet the fifty-ten goal for us, fibre to the premise. We recently fibred Rosthern, Saskatchewan, for $1.8 million for 1,083 residences. That's $1,700 a residence. We won't get all the customers, because there is a cable competitor in that town. For a fixed wireless service, it's all about spectrum, and not cellular spectrum. In rural Saskatchewan we have lots of cellular spectrum. It's the non-cellular spectrum that we need, which is constraining our ability to meet customer demands.

In terms of cellular service, we've been doing a lot of work on the economics of expanding cell service to fill in many of the unserved and underserved areas of Saskatchewan. To cut to the chase, each unserved area requires a new fibre-fed cell tower and the equipment required to be installed at the cell site. On average, it's $1 million per cell tower. Basically, most of the expansion is uneconomic due to the relatively small number of people in the footprint of these new towers. I want to remind you that cellular spectrum is not at all an issue. We have all of our unused cellular spectrum available for these towers. It's the high initial capital costs involved in building a tower.

I have four recommendations for what we need.

● (1540)

First, for fixed wireless Internet service, we need more spectrum suitable for fixed wireless Internet service. Currently, our fixed wireless service offering is spectrum-constrained and we have stopped cells in a number of sectors. Ultimately, in the absence of changes in technology spectrum utilization or spectrum assignment, we do not see a path to 50-10 for fixed wireless Internet service.

Second, rural Canada needs a program in addition to the CRTC program: $750 million, minus the money designed for far north satellite, is a drop in the bucket. The current timelines for deep rural essentially mean that the digital divide between rural and urban Canada will continue to grow.

Third, to meet the future need for speed, ultimately fibre will need to be installed for as many customers as Canada can afford; where fibre is unaffordable, those customers will need to be served by fixed wireless and satellite. That means in terms of fibre, we'll need a capital contribution for locations that are close to being economical. For those that are extremely uneconomical, in addition to a capital contribution, there will be a need for ongoing financial support.

Fourth, for unserved and underserved cellular areas, there will be a need for a capital contribution for those locations that are close to being economical, and—again for more sparsely populated areas—an ongoing subsidy program, because the capital for cellular does not stop with the initial installation, and that capital will be uneconomical as well.

The Chair: Excellent. Thank you.

We're going to move to SouthWestern Integrated Fibre Technology, and Mr. Hogan.

Mr. Geoff Hogan (Chief Executive Officer, SouthWestern Integrated Fibre Technology): Thank you for having us. Thanks for your time today, committee.

We at SWIFT in southwestern Ontario believe that broadband really should be an essential utility. We cannot participate in the modern economy today without it. We believe that SWIFT is the solution that is in place for southwestern Ontario today.

I'm not going to read this whole slide, but currently we have a lot of underserved areas. The density may be slightly higher than it is in Saskatchewan, but not by much in many of the rural areas in southwestern Ontario. Our residents have unequal access to digital services. Our urban residents have much better access than our rural residents, again, meaning access to education, health care, government services, the whole thing.

Even cows wear Fitbits now. Our agricultural communities are very dependent on technology. The third line in the fourth concession needs as much or, arguably, more broadband than their urban counterpart, because they have to drive farther to get to access services when they don't have broadband.

There are urban needs as well. We have a member of SWIFT who's building a data centre in Cambridge. There's not enough fibre for the customer to build the data centre in our technology triangle in southwestern Ontario.

It's a big problem. How does SWIFT solve this? Our catchment area, our project area, has 10% of Canada's population. We have an aggregated demand model. We have members who join our organization, and we do procurements on their behalf. When we go to the providers—we now have 1,500 sites today, and we hope to have 3,000 by May or June—that then gets on the table so that when providers bid for services, it's not only the current incumbents who are bidding for service but also, potentially, new providers coming into the area. That increases the competition, which is what we're hoping will solve the problem in the long term in these rural areas. If we get more competition, the market will take care of itself.

We have data-driven decisions. We'll get to that in a second with regard to the relationship with the University of Guelph.

Just as a quick snapshot of where we are, for the folks who aren't from Ontario, in southwestern Ontario we have 14 first nations in our catchment area and about 25% of Ontario's population.

I touched on our aggregated demand model. We're a membership-based organization. We have members from the public sector, the private sector, agriculture, all of those organizations that need connectivity. We're going to use that aggregated demand to have more say with the providers when we go to public procurement. We have one on the street right now.

The municipalities that started this project have $17 million to date, and we have a target of $18 million to $20 million for the project. The municipalities are very serious about helping their residents and want to partner with the federal and provincial governments to provide services to our residents.

Just to give you a quick cross-section of our members, we have four first nations that have joined the project already and, as I said, there are 14 in our group. They have the same challenges as our other rural residents. Their high school students can't do their homework when they get home. They can do their homework in school, but when they get home they have to drive to McDonald's to upload their homework, and that's really, in my opinion, not acceptable in Canada.

We have a really unique partnership with the University of Guelph. There are three professors, approximately, who do broadband research in Canada, and Helen Hambly is one of them. Dr. Jamie Lee is also with us here today.

It's very important to us that we measure how effective public investment is in providing incentives for private sector to improve broadband. We're doing a longitudinal study. We started collecting data back in 2012. When our program is done in 2021, we should have some very interesting stats. Jamie will talk about that in just a moment.

We collect data from three main data sets. There's the MUSH sector, including all of the public places, because they're the ones that provide the most revenue to the providers at the beginning of the project. We've collected provider data. We know where all of the providers' fibre in southwestern Ontario is. We have it mapped in a GIS system. We're also collecting residential, farm, and business data from people by using a survey mechanism through the university.

Just to go on to give you a quick snapshot of the data we've collected, we've collected the provider data under NDAs, because, obviously, Bell's not interested in sharing with Rogers where their infrastructure lies. This is a disaggregated view of the data that I'm showing you now on the slide. This is Middlesex County in the centre of southwestern Ontario. The blue areas are within 500 metres of fibre, and the yellow areas are not. You can't deliver high-quality wireless without the tower being connected to the base with fibre. You can see that the folks in the yellow areas shown there are at a serious disadvantage. This is really overstating how well it is in Middlesex, because the fibre that's running along may not have enough capacity to actually break out to connect people.

● (1545)

I'm going to turn it over to Dr. Lee now, who is going to talk a bit about our analysis of the economic outcomes.

● (1550)

Dr. Donghoon Lee: Thank you, Geoff.

Hello, everyone. Since I have about a minute, I'm going to be brief.

At R2B2, we completed some preliminary estimates of the economic benefits, namely consumer surplus and telecommuter surplus. Depending on the assumption of consumer surplus, we see the private net benefit to consumers ranging essentially from $2.6 billion to $6.5 billion. Through our continued research, we'll be able to provide more precise estimates. Right now, the estimates are rather wide, but through our research we'll be able to provide more precise estimates.

Also, please note that this is actually not the social net benefit. To estimate the social benefit or its equivalent, which is a return for the broadband investment in terms of society's point of view, we will have to put a social cost on the total social benefits. This is what we are really hoping to answer in the near future. I think that is the most important question at R2B2.

Now I'll quickly introduce another type of benefit that we had estimated, which is the telecommuter surplus. As you can see in the second-last line, the benefits could be very significant to the average telecommuter—anywhere from $10,000 to $30,000.

Other economic analyses of broadband in our research include the impact of broadband on wages, income, property values, and so forth. At R2B2, the research topics extend further to other areas as well, such as precision agriculture, health care, and so forth.

Thank you.

Mr. Geoff Hogan: I'm at seven minutes. Would you like me to stop, Mr. Chair?

The Chair: You're over your seven minutes by 16 seconds, but that's okay.

Voices: Oh, oh!

The Chair: That's pretty good. Were you finished?

Mr. Geoff Hogan: One more minute would do it.

The Chair: I'll give you 30 seconds. Wrap it up.

Mr. Geoff Hogan: Okay. The way we are approaching this is to take a typical rural area where there is some existing fibre and a lot of services, and we are augmenting that fibre optics with the fibre optics that we're subsidizing, which will be owned by the private sector. The key to this is that the new fibre is going to have a very high capacity, and there are going to be entrances into that fibre every kilometre along the way. That begins to make the business case for the private sector to connect the people who are closer to the fibre—those in the orange areas on the chart. That's the model we have. Over time, we will fill in the black areas until everyone is connected.

That's our model. The summary is that we have an evidence-based solution. We're leveraging the voice of our 3.5 million Ontarians who are members. We're maximizing the existing broadband infrastructure investment. We're trying to create universal and equitable access to all services.

The Chair: I'm glad I gave you extra time. Thank you very much.

Next, we have Mr. Chen from the Wubim Foundation.

How do you pronounce “Wubim”, Mr. Chen?

Mr. William Chen (Director, Wubim Foundation): It's the “Woo-bim” Foundation. Don't worry. Everyone mispronounces it. I mispronounced it for the first year or so.

The Chair: All right. You have up to seven minutes.

Mr. William Chen: Thank you, Mr. Chair. My name is William Chen, and I am here on behalf of the Wubim Foundation. We are a non-profit organization based in Vancouver, British Columbia, that advocates for the public interest in telecommunications development, civil society, and scholarly publishing.

First, I would like to thank you for your invitation to participate in this study. My organization is seeking solely to address the first question, "What constitutes high-speed service?"

So far, many of the submissions made in this study focus on numerical speeds, primarily on the 50-10 set by the CRTC. However, that number is insufficient to adequately define what acceptable high-speed service is in Canada. You can't limit what acceptable high-speed service is to a set of numbers. It just doesn't work.

We believe that for there to be acceptable high-speed service, Internet users must be able to make the most of their connection. They shouldn't have certain activities throttled, purposely made slow, or face arbitrary data limits that prevent them from completing certain activities using the Internet.

Acceptable high-speed service is acceptable only because you are actually able to use it, rather than it being a utility that is just there and is effectively unusable. You wouldn't consider it an acceptable service if a hydro company disallowed you to use your refrigerator because it consumes far more electricity.

There are two issues in this domain. One is the neutrality of telecommunications infrastructure, also known as net neutrality. The other is arbitrary data limits. Net neutrality, as you all know, is the basic principle that Internet service providers should treat all content on the Internet equally, whether it be a news article, a streamed television show, a research data set, or any other of the potentially millions of content types that exist on the Internet.

Internet service providers in a regulatory regime that upholds net neutrality would not discriminate, block, or deliberately slow down the acquisition and service of certain content types. This is a critical principle, because net neutrality allows for competition to thrive, and for Canadians to access new and innovative services, such as on-demand streaming, that have been made possible because of the significant technological innovations over recent years.

As communities grow, and as content types evolve to require even higher bandwidth and broadband specifications, Internet service providers who have little incentive, initiative, or urgency to improve rural broadband infrastructure will quite simply leave rural Canadians in the dark. Existing telecommunications infrastructure will become congested by the increased service demands of technological innovation.

In order to maintain a basic degree of service quality and to ensure continued usability, Internet service providers are very likely to seek to discriminate against certain content types that have a comparatively higher degree of bandwidth usage attached to them, such as activities undertaken by the video on-demand industry, by the health care sector, and by researchers. They will do so by deliberately slowing down these content types, or even by completely blocking the content as a whole.

Violations of net neutrality are like going to a golf course only to find that you are only allowed to use a putter. In addition, if you use any other golf club, security will tackle you.

At this moment, Canada enforces and upholds a strong regulatory regime for the telecommunications sector that significantly limits potential violations of net neutrality. However, attempts to overturn this current telecommunications regime will almost certainly occur in the future, and rural communities face the brunt of the loosening of regulations that protect net neutrality. This is likely because the funding of initiatives to develop telecommunications infrastructure in rural Canada is primarily short term in nature.

The goal of these programs is to immediately lay down infrastructure. However, these programs do not emphasize the need for a long-term plan for sustained development of existing telecommunications infrastructure to accommodate for technological innovation and continually increasing broadband speed standards.

The second concern we bring forward is that of arbitrary data limits, and this exists in a similar domain to net neutrality. Data limits are straightforward, as they are simply limits on the maximum usage that a broadband consumer may engage in. Without sustained investment and development in rural telecommunications infrastructures, Internet service providers struggling to maintain basic service quality may choose to implement arbitrary data limits on broadband consumers.

These arbitrary data limits will affect everyone in rural communities by limiting how certain consumers can utilize their broadband service, but they will especially hurt public institutions such as community centres, municipal governments, hospitals, public libraries, schools, and research facilities. These institutions, either by their nature or the size or their work, will either need to negotiate special agreements or pay exorbitant costs in order to maintain their broadband service in a useable state.

The only way to avert violations or a loosening pertaining to net neutrality, and to ensure that rural broadband users may make the most of their services in the future is through a concrete, long-term plan that ensures that Internet service providers will re-invest in improving rural telecommunications infrastructure.

● (1555)

Competition would be the most potent solution, but it is difficult to effectively achieve or promote due to low population densities and the general lack of anchor users in rural communities.

Prioritization of funding, supports, and financing for telecommunications infrastructure operated by non-profit Internet service providers, municipal governments, crown corporations, and co-operatives would serve to be the most potent force as a not-for-profit mandate would help ensure that any profits were reinvested in improving broadband connectivity in rural areas.

Furthermore, the last solution that we propose is government intervention, primarily through continued regulation on net neutrality and arbitrary data limits, and continued existence of funding, financing, and incentives for Internet service providers to serve and improve their service within rural communities.

In summary, the definition of what constitutes acceptable high-speed service is not simply numerical. Acceptable high-speed service is service that can be fully utilized by broadband consumers, without discrimination as to how certain content types are handled, and without arbitrary data limits. Violations of net neutrality and the imposition of data limits are practices that hurt Canadian innovation, industry, rural institutions, and local businesses. Most of all, they hurt rural Canadians. The only way to avert changes in the regulatory regime in this sense is to ensure that there is continued and sustained development for telecommunications infrastructure in rural areas, through competition and prioritization of funding for community Internet service providers that do not operate on the for-profit model and through government intervention.

Thank you.

● (1600)

The Chair: Thank you very much.

We're going to go right into questioning.

Mr. Longfield, you have seven minutes.

Mr. Lloyd Longfield (Guelph, Lib.): Thanks, Mr. Chair.

Thanks, everybody, for being here, from the west coast all the way through Saskatchewan, Ontario, and Quebec.

Connecting Canadians is one of the things that we're looking at. I'm listening to the different presentations today, thinking about the role of not-for-profits, and how this might be scaled out.

Mr. Collins, is the not-for-profit you're operating a scalable model? Are you aware of that model being successful elsewhere?

Mr. Pierre Collins: Is it scalable? One of the things that are very important in our case is that it was decided to serve only the territory of the MRC, so there was no plan at all when they created the not-for-profit organization to expand and serve other communities. Within the community, currently we are planning to serve only the residents who are not well served, but eventually we will have access for the 22,000 residents, and therefore it's going to become more..... Until the subsidy is fully utilized, we're limited in the way that we expend that money: it's to serve not-well-served residents. Once this is done, we won't have any limitations on expanding our network into other places where we could guarantee the financials of the not-for-profit organization.

Mr. Lloyd Longfield: Thank you.

Moving west to Ontario, Mr. Hogan, it's great to see you again. You did a great job of taking what was a two-hour presentation that I saw at the University of Guelph and making it into about an eight-minute presentation.

You talk about SWIFT's model as a business model. How would you see this as a model that could be used in other communities? Would that be to make a bigger model, or to make multiple models of what you're doing?

Mr. Geoff Hogan: In my opinion, SWIFT is a very regional project. It covers a lot of Canada's population, but it's actually a fairly compact area. We are a not-for-profit model, and we don't own the infrastructure, but our needs, which are the community's needs, are taken into account. It's not just the bottom line of the providers that drives decision-making.

As to whether this would scale, I think we could scale a little bit more into some other rural areas adjacent to our catchment area, but after that I think it would need to be duplicated rather than expanded, because then it gets too large.

The one piece that I think is important is that we do have some urban and some rural in the area, and there's a symbiotic relationship between the urban and rural, as with a school board, for instance. Typically the school board office is in the centre of an urban area and all the schools are remote. Those organizations want to connect to one provider or two really good providers rather than one, so having a mix of that is, I think, an important piece of the model so that we can generate more funds over time.

Mr. Lloyd Longfield: In our limited time, one of the pieces I saw in the more detailed, but also protected, information that you have showed that in some certain connection points, some providers would make more sense than others. Therefore, rather than going out in an open tender system, it would make sense for certain providers to go the rest of the distance into the smaller communities around where they already have services.

The procurement system is one that we would have to take a look at. Can you comment on that?

Mr. Geoff Hogan: We are following the broader public sector procurement guidelines, absolutely, because we've been funded by public funds. We've taken our large area and split it into about 30 smaller areas so that smaller providers are able to compete with larger providers when we do release RFPs. Our end goal is to have a lot of very successful providers with access to the funding so that we have a system with a lot of competition. As soon as there's more competition, the market should start to take care of itself. The oligopolistic situation we're in now makes the competition not work.

Mr. Lloyd Longfield: That was a point you were making, Mr. Chen, when you looked at the work on the social benefits you've been doing in British Columbia and at the other benefits as being part of the decision-making process. Did you have anything further to add on that?

● (1605)

Mr. William Chen: Non-profits work to an extent, but they work particularly effectively in areas that need to be served or aren't sufficiently served. I would not say that community ISPs would work as effectively in an urban area where there is substantial competition. Not-for-profits are effective in the sense that they have a mandate that ensures that they attempt to serve the communities their mandate covers. At at the same time, not-for-profits aren't motivated by absolute profit, so they might not necessarily make the most efficient or economic investment decisions. We've had cases in British Columbia where community ISPs, not-for-profit mandates, have failed to deliver on their expectations and have effectively gone bankrupt. That's left some rural communities in a worse state, but they are an effective option when there isn't sufficient private competition.

Mr. Lloyd Longfield: Thank you.

With the minute I have left, I want to pivot to SaskTel and ask how you work with the not-for-profits in Saskatchewan. How do you work with the smaller providers that need access to your towers or your services?

Mr. John Meldrum: Our towers are regulated by the CRTC and Industry Canada. We work with those entities through our wholesale group either to allow them to access our towers or provide them with what they need in backbone and those sorts of things. Probably the best example of a not-for-profit in our scenario would be Access Communications. That's a cable television co-operative that serves a lot of small towns that we also serve.

Mr. Lloyd Longfield: Thank you.

I'll just say thank you to everybody, and I'll turn over my eight seconds to the chair.

The Chair: Thank you very much.

We're going to move to Mr. Lloyd. You have seven minutes.

Mr. Dane Lloyd (Sturgeon River—Parkland, CPC): I want to start by thanking all the witnesses today for coming out.

Mr. Meldrum's comments struck close to home. I spend a lot of time in some of those small towns in rural Saskatchewan he's been talking about. I have a place that doesn't even have a telephone line, so I know all about that. I really appreciated his being quite forward that one of the big issues here is money. It's capital and ongoing sustainability costs.

I was wondering how your company works with the big players. What's the interaction among crown corporations, non-profits, and the Teluses and the Rogers?

Mr. John Meldrum: Speaking about cellular service, we are the fourth provider in the province, so we have an extremely competitive marketplace here in cellular service. However, at the end of the day, Bell and Telus ride on our network, so they effectively resell SaskTel service. Rogers has their own network, but it's pretty well restricted to the major cities and the major highway corridors.

As for Internet service, the big players will resell our Internet service, but we don't have big players with lots of local facilities in the major centres. Shaw and Access would be our biggest competitors—Shaw in Saskatoon, and Access Communications in Regina.

Mr. Dane Lloyd: Thank you.

Mr. Hogan, I note that your area of focus is in the southwestern corridor that covers about 25% of the population of Ontario, and about 10% of Canada. I've read recently that Bell is advertising their fibre to every home in the Toronto area, I believe. Could you comment on those sorts of infinitives?

Mr. Geoff Hogan: Bell Canada announced last year that its spending $1.1 billion in Toronto, and has just announced $50 million in Sarnia and $45 million in Windsor. You'll notice the similarities, in that they're spending in high-density urban areas. In fact, even within the boundary of the city of Sarnia there are rural areas, and they're not putting fibre into the homes in those areas. It really goes right back to the return on investment. Here, I think there is a role for government to provide incentive for them to build in areas where they don't have a business case because they are responsible to their shareholders and not to the community.

Mr. Dane Lloyd: Are these companies open to partnerships with groups such as yours to get this access broadened to the rural areas?

● (1610)

Mr. Geoff Hogan: We have 28 providers that were pre-qualified to bid on our proposals. We are doing our core and aggregation...on the street right now. We had five companies come forward and make an offer to bid. We are getting very significant interest from the private sector, but we have a large $200-million pot of funding, and we have a lot of sites on the table. Our members are saying, “We want you to bid together on all of these sites”, which makes it difficult for the existing providers because they may lose customers if they don't bid. Therefore, we have a carrot-and-stick approach. The carrot is that we have some money to help you build. The stick is that if you don't bid, we might take your best customers away. That's the way we're getting the competition to market.

Mr. Dane Lloyd: I understand.

My final question is for Mr. Chen.

What have you been finding? You noted that some of these community ISPs have failed. Could you outline the reasons they are failing, and how we can learn what not to do from those models?

Mr. William Chen: Overexpansion and poor governance tend to be the primary factors in the failure of not-for-profit ISPs. Overexpansion occurs when a community ISP starts in one community but decides to overexpand to communities nearby. That tends to be an issue. Poor governance is primarily an inability to effectively manage funds, to invest properly in infrastructure.

To a lesser extent, I would say that it also comes from increased transit costs. In British Columbia, Internet transit tends to be particularly expensive. Actually, with regard to a lot of what has been said so far about 50-10 and the comparisons made with Europe, where connectivity tends to be much higher, that is primarily because of open-peering policies and cheap transit costs. British Columbia doesn't necessarily have the same basis in place.

In general, Internet transit tends to be a lot more expensive. Internet service providers are sometimes very reluctant to peer. Just to outline what this is, settlement-free peering is when two Internet service providers connect and agree to deliver transit to each other for free, therefore bypassing any substantial Internet transit costs. That tends to be less of a thing here, where there are fewer things to peer to. The biggest thing that tends to be peered to is Netflix, but we lack major companies that can peer or that would substantially decrease Internet transit costs in British Columbia, such as Facebook, or mainland providers such as Baidu, which I think is a big thing there. The Ontario area is better placed to serve because it has more peering opportunities.

Mr. Dane Lloyd: Thank you.

I think my time is up.

Could you elaborate more on this peering process? You threw out some names there like Netflix and Facebook.

Mr. William Chen: Peering is a really cool thing. Honestly, 90% of the time it tends to be a very beneficial process. It's when two major backbone Internet service providers peer together. They agree that transit between the two entities is free. That's in the case of settlement-free peering. There's also paid peering, where ISPs can charge lower rates for connecting directly to their network. However, in the United States, that has been used to extort companies like Netflix and other video-on-demand companies, by other ISPs refusing to peer and then making Netflix, etc., pay for the Internet transit, ultimately forcing them to cough up.

Mr. Dane Lloyd: Does peering conflict with net neutrality in any way?

Mr. William Chen: Peering actually supports net neutrality. I wouldn't necessarily say they're integrally related, but peering is a beneficial kind of process that ultimately is a mutual agreement that benefits ISPs. It decreases Internet transit costs and ensures that users of backbones and middle-mile connectivity tend to experience higher usability and less congestion in general. Generally, they occur within Internet exchanges.

The Chair: Thank you very much.

Mr. Masse, you have seven minutes.

Mr. Brian Masse (Windsor West, NDP): Thank you, Mr. Chair.

Mr. Meldrum, first of all, it would be remiss if I did not recognize that SaskTel was one of the leaders in providing some justice for the deferral accounts decision that took place. For the people who aren't familiar with it, this was the overcharging of customers. Some of the private sector operators took it to the Supreme Court of Canada, which affected consumers, and SaskTel was actually one of the leaders in protecting consumers, so I appreciate that piece of history.

With regard to where you are now, what specific things—low-hanging fruit—could be done to expand service into the rural areas? What's the movement now? You have an interesting situation, because you actually have others building off of your towers. Often we hear from people trying to get on other people's towers. What's the difference now in terms of trying to get to the easy access points that may not be such a large investment? What things can connect people?

● (1615)

Mr. John Meldrum: Our huge focus at the moment is around cellular. Having listened to other witnesses, people tend to just talk about Internet in general, but cellular can take you a long way in terms of Internet connectivity. We are working with the provincial government at the moment to try to figure out the cost or do the cost-benefit analysis of expanding cellular into the underserved areas we have in the province. So far we're seeing that it's hugely problematic. For that $1 million per cell site, which covers maybe an additional 100 or 200 people, the economics just don't work at all.

Regarding fixed wireless Internet service, we are in the process of adding 34 towers ourselves in terms of sites. We have an application in to Connect to Innovate for another 17 towers, so we're continuing to expand our fixed wireless service, as are other competitors.

I don't want to overstate the extent to which competitors use our facilities. They use them when it makes sense for them. They're more inclined to put their facilities on top of grain elevators, or any kind of high location where it's possible. They will also do a lot of daisy-chaining to then either give it to us or perhaps even to somebody else. Sometimes they will break into the national fibre thing on the railroads, where the railroads go across.

Mr. Brian Masse: You would just be one of several options, then, for the piggybacking that's taking place with the other providers.

Mr. Hogan, with regard to your access to others, especially the Bell expansion and others, how easy is it to work with the providers? Are the rules clear? To the extent that you can, could the next spectrum auction, for example, be more specific to terms and conditions, and could additional unused spectrum be made redundant rather quickly in a "use it or lose it" type of approach?

Mr. Geoff Hogan: We are very much a fibre-only project, so spectrum really doesn't enter into our conversation.

I will say one thing, though. We've been funded through the small communities fund, and one of its requirements is that any infrastructure we fund must be open access. Facilities-based competition, which is what we have in Canada today, in my opinion does not work in rural areas. We can barely afford to put the first piece of fibre down the road, so how could we possibly get competition by doing multiple pieces? Let's make the fibre we put down the road open access so that, like our roads—in the same way that UPS and FedEx deliver packages along a public road—we can deliver Internet or over-the-top services across a piece of fibre into people's homes and get competition that way.

Mr. Brian Masse: It's interesting. As that's happening, we have a difference between communities in terms of even Canada Post now with respect to traditional carrier service.

Mr. Chen, in your experience with bundling of ISP providers, to use laymen's terms if they were working together more comprehensively, is there more room for that? Right now a lot of competition is located in hot spots. Could there be an expectation that that competition or those areas would be expanded? For example, if we're allowing that into the one area, there's almost an expectation—or part of the contracts of new spectrum, and maybe others require—that it actually include a larger geographic area.

● (1620)

Mr. William Chen: Could you elaborate briefly on what you mean by bundling?

Mr. Brian Masse: Yes. Exactly, it would be making sure, when the spectrums to be auctioned off are coming up, that we have terms and conditions that are in larger zones—for example, if you want to get into the GTA area. We heard from Milton, for example. It doesn't have the same services as downtown Toronto, so we would extend competition out there as well.

Mr. William Chen: To be honest, I don't think I can recall any kind of experience in bundling or any kind of knowledge on how that would affect market conditions, and I don't want to give you a wrong answer.

Mr. Brian Masse: That's okay. That's some of the testimony we heard on Tuesday.

That's it, Mr. Chair. Thank you.

The Chair: Thank you very much.

We're now going to move to Mr. Graham.

You have seven minutes.

Mr. David de Burgh Graham (Laurentides—Labelle, Lib.): Thank you.

[*Translation*]

Welcome, Mr. Collins.

I want to congratulate you on your project. I especially want to thank you for telling the RCM of Antoine-Labelle about it, because they used your information and examined what you have done in order to carry out their own project. We appreciate that very much in our region.

I would like to address some technical questions with you.

You certainly have problems using power poles in the constituency. Can you tell us a little about the difficulties you have with using poles belonging to other companies?

Mr. Pierre Collins: Yes, we actually have supported a number of issues for the benefit of all RCMs.

In Quebec, RCMs were strong participants in the first wave of applications under the Digital Canada 150 program and the Connect to Innovate programs. Several tens of millions of dollars have been paid in grants and a number of RCMs have projects under way.

To respond to one of your questions just now, I would say that the approaches are reproducible, and they are being reproduced. Rural regions are becoming organized.

We are talking about the RCM of Antoine-Labelle, a major RCM. They have just started a $50-million project to establish a fibre-optic network to serve the homes in a very large rural area. The project will take several years.

As I was saying earlier, deregulation in Canada has happened in a very progressive and very organized way. We have all benefited. We are at the point where everything is completely deregulated, which allows us to have competitive infrastructures. That is what we are in the process of doing: we are building infrastructures in places where others do not want to go.

Our economic model needs grants. We have to reduce our capital costs in order to create sufficient cash flow to keep the companies operating. Rights of way are the final obstacle stopping us from deploying our networks. If we have no access to the structures, it is impossible, unless we dangle from clouds to get access. So we have to use the infrastructures of competing companies, like Bell Canada or other smaller local suppliers. Hydro-Québec is not actually a competitor, but it owns supporting infrastructures.

That is how we do it currently. We have to submit applications and plans. It is very organized and very structured, and the administrative processes come with very precise timelines. When the structures are in a state of disrepair and unable to take any extra load, the owner asks us, as the last group to want to install a cable, to pay all the costs of modifying, upgrading and modernizing the structures. Those costs make the project less profitable.

Let me take advantage of a forum like this one to emphasize that, at the end of the day, it is extremely important to understand that we must have access to the structures. We already have access to the capital, to the technology, and to the customer base, and that is important. When we sell a service to the people in our RCM, you can believe me when I say that they subscribe routinely and naturally, because it is a community project.

Mr. David de Burgh Graham: Can you tell us what it costs to connect these 7,000 homes in your RCM?

● (1625)

Mr. Pierre Collins: Because of the infrastructure?

Mr. David de Burgh Graham: Yes, because of the physical infrastructure.

Mr. Pierre Collins: There are rental charges associated with the infrastructure. Without going too much into the technical details, I'll say that renting poles is very expensive, and this directly influences the feasibility of a business model. New infrastructure is very expensive as well, but in our case, it would cost $13 million to connect 7,000 homes.

Mr. David de Burgh Graham: I believe you offer three services. How much do these cost to your customers?

Mr. Pierre Collins: The rate policy is yet to be defined, but it will allow us to compete. The principle behind such a policy is to be able to offer services at a reasonable price.

Mr. David de Burgh Graham: Are the big companies stopping you from deploying your services?

Mr. Pierre Collins: They only do so with regard to support structures.

Mr. Louis-Charles Thouin: It's true that they're not stopping us from deploying our services, except with regard to access to infrastructure, for the simple reason that we choose markets that they don't cover. These markets do not have Internet access. They are leftover crumbs to these companies. They occupy the markets within town boundaries. They have a strong foothold, and compete with each other for the same customers. We take the customers that they don't want.

People quickly get on board with the model of not-for-profit organizations created and managed by the communities or public and private administrators. At the end of the day, all profits generated by our organization are redistributed to the communities. The profits don't go into the pockets of investors or shareholders, but into the taxpayers'. This is why it's easy to get people on board for a project.

Mr. David de Burgh Graham: Last Tuesday, a witness told us that, if we left the private sector alone, it would offer, with its own resources, rural access to Internet, and the problem would be solved. What do you think of this comment?

Mr. Pierre Collins: If we left what?

Mr. David de Burgh Graham: If we left the private sector companies alone, that they would solve the problem of rural Internet access with their own resources and without subsidies.

Mr. Pierre Collins: No, it's the opposite.

Mr. David de Burgh Graham: That's what I thought as well.

Mr. Pierre Collins: These regions haven't been covered for 50 years, and there's no reason why they would get coverage overnight. This has nothing to do with the private sector. It has everything to do with the economic model.

[*English*]

Everybody talks about density, that if they don't have enough density the cost of structure is so high that there is no way you can make a rate of return that typical telecom companies are looking for.

[*Translation*]

Mr. David de Burgh Graham: Thank you.

[*English*]

I have only a few seconds left. I wanted to go very quickly to Mr. Chen, with a very quick question.

In terms of Internet neutrality, investment in rural Internet is often different from one town to the next. Would you say that should be a factor in net neutrality? If you invest in a differential manner, is that violating the neutrality of the net because you're not providing equal service to different people?

Mr. William Chen: Net neutrality primarily refers to the discrimination in content, not necessarily the inadequacy of service in terms of numerical speeds.

Mr. David de Burgh Graham: So it's not about discrimination in availability?

Mr. William Chen: Discrimination in availability is not considered a net neutrality issue. Generally the way that people tend to phrase it is that it's better to have slower Internet if that would mean that all services are treated equally than fast Internet that discriminates against certain services by making them arbitrarily slower. With the slow Internet, it might be slow but at least you have competition.

Mr. David de Burgh Graham: Thank you.

I'm out of time.

The Chair: Thank you very much.

Mr. Eglinski, you have five minutes.

Mr. Jim Eglinski (Yellowhead, CPC): Thank you.

I'd like to thank all the witnesses for appearing before us today.

I have one question that I'd like to go through with all four of you to get your answer.

The Liberal Government has pledged $500 million for the Connect to Innovate program. Just doing some quick figuring here, we've spent close to $200 million of that. We've spent $195 million in Quebec and Newfoundland alone over the last couple of years. Manitoba and B.C. got about $65 million, and I know that they've pledged another $100 and some million for this upcoming year for part of B.C., and again the east.

Is $500 million anywhere near enough to connect?

We'll start at that end of the table over there and we'll end up with Saskatchewan at the end please.

Mr. Pierre Collins: I can't directly answer your question because I don't know all of the data.

Mr. Jim Eglinski: People are talking about $1 billion just for the greater Vancouver area. We're talking about $500 million for Canada.

● (1630)

Mr. Pierre Collins: Yes, one of the major problems we have is the difficulty in identifying who really has the service and who does not. In our case, when we started to look and wanted to apply to the first program, what we got for the MRC was $4.7 million. This time we have multiple clients who are getting money. The first thing we do is to measure who does and doesn't have service among the people in the territory, because if you ask Telus, Bell, Rogers, all the incumbents—you know what?—everybody is well served. There's no need for money. However, if you check the reality of service, you will find that it's for 7,193 houses—it's only part of the 22,000. It's the same for any MRC in our province. Everybody would claim that they're well served.

We took the hexagon we got from the government, and they were all well served. We measure it. We do surveys. We knock at doors, and we go to the civil servants of the municipality, and we find out who is served and not served.

Mr. Jim Eglinski: Thank you.

Mr. Chen.

Mr. William Chen: As far as funding goes, it's a start. I wouldn't say it's sufficient for the long term, and I've emphasized the need for sufficient sustained investment, but it's a start.

But as my fellow witnesses have said, it's a drop in the bucket compared to what needs to be done. That doesn't necessarily mean that government should be footing the entire bill. Part of it should come from incentives to the private sector, particularly to engage in creating and building backbone and middle mile connectivity, so that the funding from the government can be directed effectively into more localized infrastructure projects. That would be the most efficient way to make use of it, but in the long run, yes, there needs to be a concrete plan for sustained development.

Mr. Jim Eglinski: Mr. Hogan.

Mr. Geoff Hogan: No, it's not enough. Our project area was awarded $180 million in 2016, and that is a good start, just for southwestern Ontario. When you look at the north, it has enormous challenges, much worse than Saskatchewan even has. One of the things that I think would make it easier for any kind of organization, whether a private sector-directed subsidy or a not-for-profit that has plan to do it, would be to have sustained annual investments rather than individual program areas where we have to wait to find out what it's going to be two years from now. That would make the planning and the execution far easier, and far more effective, and in the long term, I think it would reduce the amount of subsidy required by the private sector to finish the job.

Mr. Jim Eglinski: Thank you.

Mr. Meldrum.

Mr. John Meldrum: Well, to state the obvious, it doesn't come anywhere close to what's needed to get to 50-10, but I think the ISED program is to get to 5-1. It seems that the $500 million will get the country there, but I think the issue is that it comes down to these hexagons. I've heard people talk to the committee about the hexagons. I think the idea is to look at the hexagons of people to see whether the majority of the people have access. Well, that means the minority may not have access. So I think the answer to your question is to work hard with ISED to understand the hexagons and the information that's gone into saying that those hexagons are served—but served to what degree?

Mr. Jim Eglinski: Thank you.

I'm a representative from one province. What would it cost the province of Saskatchewan to connect at 50-10?

Mr. John Meldrum: At the moment that would require fibre to go to the farms and acreages. We don't have a number for that, but it —

Mr. Jim Eglinski: Can you give me a rough guess?

Mr. John Meldrum: It would be $5 billion, probably. It's not affordable, in our opinion, to plow fibre to every farm. I know there was somebody from the States who talked about it. Huge money has come out of their universal service funds to fund that fibre to the farms.

Mr. Jim Eglinski: I think I'm out of time, aren't I?

The Chair: You're way over time. It was a good question, though.

We're going to move to Mr. Bossio.

You have five minutes.

Mr. Mike Bossio (Hastings—Lennox and Addington, Lib.): I couldn't agree more with Mr. Eglinski, but you're right that it's a start. It's still the largest investment that has ever happened in rural broadband, and if we get partnerships with the provinces, the municipalities, and the private sector, we can turn $500 million into a billion. Then it makes a significant start, but yes, we certainly have further to go.

Mr. Hogan, I'm from eastern Ontario, so I'm very familiar with EORN, and I know that SWIFT is actually modelled on EORN to a great extent. Is that fair to say?

● (1635)

Mr. Geoff Hogan: Our governance model is very similar, yes.

Mr. Mike Bossio: Okay.

From a modelling standpoint, one of the issues with EORN is that it was out of the gate early—it was before Netflix—and so of course a lot the investments it made did not foresee Netflix and the huge impact of video on the networks. It invested a lot more into wireless and backbone, not the mid-layer of the network, the backhaul piece of it, and bringing fibre to the POP.

Is the model you're looking at trying to ensure that fibre gets to every POP, and then to combine it with a fixed wireless or microcell type of model, where you have microcells taking in certain levels of that density, and then going to the microwave towers, which will fill in the larger areas, and then where you've got density you can bring fibre right to the home? Are you looking at all three levels of types of model?

Mr. Geoff Hogan: Our model is different from EORN's in that the only technology we are going to subsidize is fibre. We believe it's the only long-term infrastructure that has the scalability for future needs. I must say that we don't think of 5-1 or even 50-10, because that's today's number, and the future number....

When we compare ourselves with the OECD rankings, we're 24th and have 5.3% fibre penetration, compared to a reasonable country like Sweden, which is 50% fibre penetration. I hear that the $5 billion number is unaffordable, but if you can deliver health care more effectively and reduce the cost because you're well-connected, it would be a great investment to make. We actually did the math and found that it would be a great investment to spend $5 billion in Saskatchewan or southwestern Ontario.

If you can imagine every business, home, or person no longer being constrained by bandwidth, whether it's a cap or speed, the innovation that would come out of this country would be unbelievable. We now make decisions all the time like I can't make a phone call on Skype right now because my daughter's on Netflix. I have to yell across the house to—

Mr. Mike Bossio: Sorry, I don't want to run out of time, and I really want to go to Mr. Meldrum. I think the $5 billion is difficult. It's difficult to all of a sudden say that we're going to put $5 billion into this immediately. There are certainly some hurdles there. While we're trying to get over those hurdles, though, the spectrum discussion becomes tantamount to that.

Does Saskatchewan operate on 3.5 spectrum for Internet, as most others do, as far as fixed wireless is concerned?

Mr. John Meldrum: We do not, but others do.

Mr. Mike Bossio: Okay. Would you say that's part of the difficulty then, that you don't have an allocated spectrum band dedicated to Internet?

Mr. John Meldrum: We're using the unpaired 2500 blocks for our service.

Mr. Mike Bossio: Right, which everyone can do.

Mr. John Meldrum: No, that was auctioned off. In fact, some of the surplus 2500 is being auctioned off. We're not eligible because we have too much cellular 2500. That's why we're going to continue to be spectrum constrained.

Mr. Mike Bossio: Your cellular and Internet are both on the 2500? Right now, in Ontario 3500 is strictly for Internet and cellular is a different band, right?

Mr. John Meldrum: Yes, it's just that in the 2500 there are these unpaired blocks, and they can be used for fixed wireless.

Mr. Mike Bossio: Have you looked at dynamic spectrum allocation as a potential solution for the spectrum problem?

Mr. John Meldrum: I think that is more applicable to the cellular end of the business, and we're not running into spectrum constraints with respect to the cellular end of the business.

Mr. Mike Bossio: No, actually, it can be applied to any level. Sorry, am I out of time? I apologize.

I think the technology is there now that we can actually allocate spectrum depending upon need and the technology being utilized, but that's another discussion. Sorry.

● (1640)

The Chair: All right, we're going to move to Mr. Eglinksi.

You have five minutes again.

Mr. Jim Eglinski: Five minutes again, all right.

The Chair: Unless you'd like to sell some of your five minutes to the other side.

Mr. Jim Eglinski: They might want me to.

Voices: Oh, oh!

Mr. Jim Eglinski: I did have a question for Mr. Chen.

According to your lobbying profile, you're calling for the creation of a crown corporation Internet service provider that would provide Internet access to businesses and residential customers at a reasonable rate.

Mr. William Chen: We've re-evaluated that priority and believe that it would be better accomplished at the provincial rather than federal level. Admittedly, at the federal level it would be a stretch, primarily because the diffusion of funds would not be as effective as it would be within localized regions. We've amended our goals here to focus primarily on service at the municipal and provincial levels. The smaller the level, the smaller the mandate and the better the service, in our opinion.

Mr. Jim Eglinski: Thank you.

SouthWestern Integrated Fibre Technology, could you describe some of the challenges you've faced in obtaining either public funding or private capital to invest in rural broadband?

Mr. Geoff Hogan: It took us six years to get our first funding envelope. The municipality spent about a million dollars on studies and things like that. That was long.

For the private sector capital, we've done some analysis, so our project subsidizes cap funding for the providers up to 66%. The provider would have to provide 33¢, and we would provide 66¢ of subsidy. We've done some math and, through collaborative meetings, we've had feedback from providers that in areas with very low density, they won't bid with only a 66¢ subsidy, because they would not get enough revenue even if they had free capital to operate the system alone.

We're not having trouble getting the private sector money in the slightly denser areas, but when you look at it as a whole in our region, you get the very low density, the medium-density farm, and the small urban towns. If you mix them all together there's a business case if we look at it as a holistic system, but if we just look at the least dense, we're going to have to end up subsidizing it almost 100% for them to be able to even run the system, I think.

Mr. Jim Eglinski: Okay.

I come from one of those areas you're describing. What regulatory changes do you think should be made federally that might assist provinces to accomplish our rural goals? I think we can do that fairly easily in the urban centres.

Mr. Geoff Hogan: I think open access is one of the key tenets. The CRTC has forborne issuing regulations on the transit between points and, now, with the disaggregated model, competitive providers that want to deliver services to a local area have to buy their transit on the open market, back to, in Ontario, 151 Front Street. There isn't a lot of competition in these rural areas and there's a lot of investment that those small private sector companies need to make in that small area, and they don't trust that their costs won't escalate over time for their backhaul, so they don't make the investment.

If you make everything open access from end to end required by the larger providers, there would be much more competition in the market for the small providers. That would be my biggest ask.

Mr. Jim Eglinski: How much time do I have left?

The Chair: You have a minute and a half.

Mr. Jim Eglinski: To Montcalm Regional County, you talked about deciding to go with fibre and investing heavily in fibre. Did you consider other high-speed technologies? Why did you choose fibre over them? We had a person in here on Tuesday who said the satellite system might be a cheaper way to go. I wonder if you would just comment on that.

Mr. Pierre Collins: I've been in the business forever and I've seen the evolution from copper to everything else. I think there's only one means to be able to have a sound investment for Canadians for the long term, and it's a wire. It's the photon going into a tube of glass. Nothing else can beat it terms of density, quality, robustness, and the long term and longevity.

Think about 50 years. Corning will tell you that there are networks that have been in operation for 50 years without any interruption and without any maintenance. If I had to put my own money into it, I would put money into fibre, no doubt whatsoever.

● (1645)

Mr. Jim Eglinski: That was the reason before, right?

Mr. Pierre Collins: Yes. It's technology, basically. It's capacity. It's maintenance. It's all of that.

Mr. Jim Eglinski: I hear rumours coming in my area that some people would like to use old gas lines and shove fibre in there. Do you see that realistically happening?

Mr. Pierre Collins: Yes. In one of my previous lives, we used abandoned water pipe in downtown Toronto. We purchased the old network and we pulled fibre into every single business. We were in a very good situation, because right-of-way is the key. Once you've decided on the right technology—fibre—the next thing to handle is the rights of way. You have to get access to the buildings. You have to get access to the customers.

Mr. Jim Eglinski: So it is realistic that we could pull fibre through pipe?

Mr. Pierre Collins: Absolutely. That can be done any time.

Mr. Jim Eglinski: Thank you.

The Chair: Thank you very much.

We're going to move to Mr. Baylis.

You have five minutes.

[*Translation*]

Mr. Frank Baylis (Pierrefonds—Dollard, Lib.): Good afternoon, Mr. Collins. I'll start with you.

On the subject of rights of way, you talked about Hydro-Québec and Bell Canada. Is there something in federal jurisdiction that could help you? We cannot regulate the activities of Hydro-Québec, but how could we help you with this issue of rights of way?

Mr. Pierre Collins: In fact, you do regulate the activities of Bell Canada, which owns and operates 50% of the province's support structures. The other 50% is divided up into two areas in the province. Bell Canada has its poles and Hydro-Québec has theirs. Every time we want to install a cable, a strand or an anchor, we have to ask them for permission. That means that there is a regulated administrative process. The CRTC has been sticking its nose into these matters forever. The rates are clear. It costs $1.23 per month, per pole. It costs $0.55—

Mr. Frank Baylis: For the moment, are all the fees charged by the CRTC reasonable?

Mr. Pierre Collins: They are increasing.

Mr. Frank Baylis: The fees are increasing?

Mr. Pierre Collins: Yes.

Despite these fees, I think that they haven't well maintained—Since you're asking for my opinion, I'll give it to you.

Mr. Frank Baylis: Go ahead, now is the time.

Mr. Pierre Collins: Now's the time, right? I think that they haven't maintained all of their infrastructure very well.

Mr. Frank Baylis: They haven't maintained the infrastructure. So, if you want to use it, you unfortunately have to pay to repair it. Right?

Mr. Pierre Collins: Yes.

When a pole leans more than five degrees, it needs to be changed.

Mr. Frank Baylis: Five degrees?

Mr. Pierre Collins: Yes.

The fact that we work with municipalities helps us a lot, because they give us the rights of way. We can just start digging in the streets, you know—

Mr. Frank Baylis: Let's just stick with what the federal government could do.

Mr. Pierre Collins: The battle is endless. These costs are—

Mr. Frank Baylis: If we regain control via the CRTC, and we go over the rental fees—

Mr. Pierre Collins: There are also maintenance fees, which are very high.

Mr. Frank Baylis: There are maintenance fees?

Mr. Pierre Collins: Yes, that's what we call them.

Mr. Frank Baylis: For the moment, you have to pay these fees. Right?

Mr. Pierre Collins: Absolutely.

The engineers will redo a design, realign the poles, decide to change the lines, and send us the bill, which we have to pay in full. The bill is one thing, but the time it all takes is another.

We are told that it will be done, but that our area isn't a priority.

Mr. Frank Baylis: What solution would you suggest?

Mr. Pierre Collins: First, I think that we should have realistic costs when we do maintenance work; the costs should therefore be standardized. We should say that a pole costs $1,500, and not $4,500 as is sometimes the case.

Mr. Frank Baylis: So they will bill—

Mr. Pierre Collins: That's engineering. Each project is evaluated and is given an identification number. I don't know if you remember a process called “special assembly”, which was a black box at the time in telecommunications. Things went in on one side, and came out on the other, and it cost $100,000.

[*English*]

Mr. Frank Baylis: SaskTel, do you have any issues with pole access or people accessing your pole?

Mr. John Meldrum: We don't own very many poles. The vast majority of our backbone is buried. We don't have any issues there.

Mr. Frank Baylis: Let me then go then to another point that you raised about spectrum. You said that you have an issue with fixed wireless spectrum, not with cellular spectrum. What is your issue there? I thought a lot of fixed wireless spectrum was open or unused spectrum. What is the particular the issue you have with that?

● (1650)

Mr. John Meldrum: We have not deployed unlicensed spectrum for our fixed—

Mr. Frank Baylis: You're not using unlicensed spectrum.

Mr. John Meldrum: We're not using unlicensed spectrum. We are using licensed spectrum.

Mr. Frank Baylis: Why don't you use the unlicensed spectrum for your fixed wireless?

Mr. John Meldrum: I did speak to our spectrum engineer the other day. It's a question of interference and quality of service. There are no guarantees. When people come to SaskTel for service, they're looking for something that's very robust.

Mr. Frank Baylis: If you use the unlicensed spectrum, you just don't have the quality you need. I got that.

Who has that spectrum? Why can't you get your hands on it?

Mr. John Meldrum: Industry Canada is going to auction it off. They say there is a cap of 60 MHz. Our issue is that the spectrum in the 2,500 band is not all created equally. You have the single band in the middle that we're not using for cellular. It doesn't have the up and the down. That's the one we use, and they count that as part of the cap. We tried to make submissions—

Mr. Frank Baylis: You have a cap on your spectrum. Is that what you're telling me?

Mr. John Meldrum: Yes. They're saying we have too much.

Mr. Frank Baylis: But they're talking too much on the cellular side. Because you have a lot on the cellular side, they're encapsulating all that together and saying that you have too much, so you can't get fixed spectrum.

Mr. John Meldrum: Right, and the cap is in that particular band, the 2,500 band.

Mr. Frank Baylis: That's also where you find the good fixed wireless spectrum that you want to use, right?

Mr. John Meldrum: That's what we chose for the fixed wire, for offering the service, yes.

The problem is that the equipment we bought is Huawei equipment, so it's carrier grade, but it only works on the 2,500 at the moment. We're not eligible, and we have stop sales on sectors.

Mr. Frank Baylis: Industry Canada says you're not eligible. It's not a pricing issue for you; it's just an eligibility issue.

Mr. John Meldrum: Yes. We will not be permitted to bid.

Mr. Frank Baylis: That's just because in Saskatoon, or in Saskatchewan, they say you have too much right now.

Mr. John Meldrum: Right.

You've heard some of the other folks in the previous testimony talk about congestion with fixed wireless. We avoid that by stopping selling. We do not add more customers, so we're telling people today, “We can't provide you service because we don't have enough spectrum”.

Mr. Frank Baylis: The issue that other people have mentioned is that big companies are hogging all the spectrum. We heard that two days ago, that you're hogging all the spectrum, and now you're telling me that you need more spectrum to be able to use it in the fixed wireless.

Mr. John Meldrum: Yes, it's cellular spectrum versus fixed wireless spectrum.

I think I have to add, too, because I read all that about the big companies hogging the spectrum—

Mr. Frank Baylis: You're one of them.

Mr. John Meldrum: —that there is a process with Industry Canada to be able to challenge the holder of the spectrum to say, “You're not deploying it; I'd like to deploy it”. and you can force it through Industry Canada to be able to get the sub-licence for that area you're interested in.

Mr. Frank Baylis: Yes, I'm—

Mr. John Meldrum: It's typically deep rural.

Mr. Frank Baylis: —I'm led to believe that they get around that challenge by putting white noise on the spectrum, or they're using it.... The way you challenge is that it's in use, but it's not serving people. That's the problem.

Is that true or not?

Mr. John Meldrum: In terms of cellular, I would say no. This process doesn't occur with the fixed.

Mr. Frank Baylis: Okay.

I've run over my time, but thank you.

Thank you, Chair.

The Chair: We're going to wind it down. We have five more minutes on each side, and then we'll be done.

Mr. Eglinski.

Mr. Jim Eglinski: Thank you, Mr. Chair, for giving us the extra time.

Mr. Meldrum, I'm in central Alberta. I go west of Edmonton to the B.C. border, and my colleague is between Edmonton and me. Of course, a big portion of our area is agricultural land like yours. It's flat with relatively good access by road every one or two miles, but then we move into very heavily forested areas with very little population and lots of rolling hills into the foothills of the Rockies, like my area. I know you have very similar terrain. The southern part is very flat and very remote, but then as you move north, you get into areas with very heavy bush and it's very similar to ours.

Have you had to take into account the differences in these terrains in any specific way, by using of different types of technology in northern or central Saskatchewan, or your heavily wooded areas, versus southern Saskatchewan, which has a very light population with very open terrain and not a lot of roads, etc.?

● (1655)

Mr. John Meldrum: Northern Saskatchewan is probably a little different from Alberta. The populations tend to be congregated, so they're easier to serve, and we're able to serve them with fibre. We have fibre that goes along the roadway, such as for La Ronge. We have fibre that goes up to La Ronge, and then we serve the people of La Ronge with terrestrial facilities.

We got some money from Connecting Canadians to take fibre up fairly close to the Athabasca basin, that area around Lake Athabasca, Stony Rapids, and those sorts of places. Again, once we can get there, we take microwave shots to get all the way into the Athabasca basin, but then we're able to provide Internet service to Stony Rapids via wire-line services.

That's probably the difference; whereas, the south is all about the lack of density and the lack of a business case to serve people because of the lack of density.

Mr. Jim Eglinski: Do you see a need for this federal funding to assist the provinces or private corporations, or to feed areas like that, to give them the service that we're thinking we're going to provide them?

Mr. John Meldrum: We do still have some applications to Connect to Innovate. They haven't dealt with the Saskatchewan applications yet. There is some backbone in there for which some assistance is being requested, because there is no business case to provide that backbone. In this case, it's running more or less south of La Ronge over to Flin Flon and Creighton to the Manitoba border.

So yes, there is still a need for money to be able to install even backbone in those northern areas.

Mr. Jim Eglinski: Okay. Thank you.

Sir, old waterlines, pipelines—I loved your answer. That's good. I'm interested and I'm excited, because we have lots of those running all over our province. Can you just answer a question for me? Let's say you have a waterline running down your city. You buy the old waterline or you get permission to use it. You run your fibre and you “tee off” into a building. How do you tee off? Do you have to dig down to that place and do your joint, or do you have a mysterious way of sending that fibre? I know that we can drill wherever we want underground in Alberta and pinpoint it to the inch.

Mr. Pierre Collins: Unfortunately, that was not me who was doing that.

Mr. Jim Eglinski: You're not sure how they do it.

Mr. Pierre Collins: No. I mean, there is the technology to do it today. I know that for sure. There's a way to pull cables and things like that. So don't worry, that can be done.

Mr. Jim Eglinski: All right. Thank you.

I'll turn over whatever time I have left to my friends across.

The Chair: Actually, I want to ask a quick question.

Mr. Jim Eglinski: Okay. You can have my time and a little of theirs.

The Chair: Just to follow along the lines of where Mr. Eglinski was going, do you know if they are pre-wiring when they're doing infrastructure, building roads, and those sorts of things? Are they building it into the actual infrastructure?

Mr. Pierre Collins: When they do a road?

The Chair: When they're building a new road.

Mr. Pierre Collins: No.

The Chair: They're not doing that?

Mr. Pierre Collins: No. They open the street three times, one year at a time, just to make sure they bother everybody.

Voices: Oh, oh!

Mr. Pierre Collins: We call that “planning”. Planning is something that exists here but nowhere else.

The Chair: Interesting.

Mr. Pierre Collins: It's funny, but that's the reality. Everybody knows that. An abandoned pipeline, abandoned waterline, abandoned conduit has value in the whole telecommunication infrastructure, no doubt.

The Chair: In British Columbia, in my area, they are starting to do that. I'm just not sure if it's everywhere.

Mr. Pierre Collins: No.

Mr. Jim Eglinski: I was just going to say, Dan, in answer to you, that when I was the mayor of the City of Fort St. John, when our new subdivisions were going in, starting about 2002, we were fortunate to put in conduit for future connections.

Mr. Pierre Collins: That is happening. That's something else. In new areas where they're planning to build houses and things like that, they will put in conduit. They're going to ask the facility providers, including the cable provider, the gas provider, the electricity provider, and the telecommunication provider, to join together and build conduit. In that case that exists, but on long routes they don't do that yet.

● (1700)

The Chair: Thank you.

Mr. Jowhari.

Mr. Majid Jowhari (Richmond Hill, Lib.): Thank you, Mr. Chair.

At the tail end of your presentation, Mr. Hogan, you only had 30 seconds to talk about the very interesting solution you're proposing. From my point of view, it kind of balances between the cost and some of the obstacles. It brings in a private and public partnership, the way I understood it. As an organization, you claim not to own any infrastructure. Can I ask you to go through it and explain how you are planning to implement a solution like that?

Mr. Geoff Hogan: When we look at any normal rural area, there are services and buildings. The white square on this slide has the points of presence, and those are owned by private providers today. Let's say the outside ones are Bell Canada and some of the spurs are some smaller providers. All those services are privately held. We go to RFP. We've identified where all those yellow pieces are by doing a pre-qualification with the providers and requiring them to tell us where their fibre is.

We are going to go to public RFP and say these areas in the black spaces need fibre running through them. Not only are you going to run fibre through them, but you're also going to upgrade the telecom infrastructure, the switching stuff, where all the pieces of fibre plug into the existing points of presence, and we'll add some new ones: our little bird logo. The key point is that we have lots of points of interconnection. Some of that fibre could be owned by one company, and some could be owned by another company, but because our funding requires open access, they must be able to use each other's fibre. We can put in one piece of fibre, but all the providers can compete to deliver services across that fibre. That's where we think the competition comes from, and that's really how the private market works. When there's enough competition, it takes care of service and pricing naturally.

If you look at the left side, it's those orange areas where there's now a business case to connect a tower, a subdivision, a larger enterprise, like an on-farm operation that requires.... We have Mennonites in northern Grey County who have very sophisticated operations that require plans to be sent back and forth to their operation on a farm. They need high-capacity fibre to do that.

Does that answer your question?

Mr. Majid Jowhari: Who owns the infrastructure?

Mr. Geoff Hogan: The private sector company that wins our bid will be subsidized by our funding, but at the end of seven years, they will own 100% of the infrastructure. At the time of the RFP, we can place rules and restrictions on how that's used as part of the requirement to get our funding.

Mr. Majid Jowhari: Okay, so the 16 regional and local municipalities come together. They've come up with a model, i.e., the model you just presented, and then they're bidding on it. In your auction, you are asking who will bid on this so long as they deliver this model.

Mr. Geoff Hogan: That's correct.

Mr. Majid Jowhari: Okay, and then the infrastructure is owned by a combination of the public and private sectors. How do you recover the costs?

Mr. Geoff Hogan: For seven years, it's a requirement that we own 51% as SWIFT, the not-for-profit. To get the private sector to bid, we have agreed that at the end of seven years they will own the infrastructure outright. Our rules will still apply because they've signed a contract with us. They will own it 100% at the end.

Mr. Majid Jowhari: How has the $500 million that we discussed played a role in this?

Mr. Geoff Hogan: We were funded through the small communities fund, which is part of new building Canada, which is an infrastructure fund, not the Connect to Innovate program. Connect to innovate could have been used this way too, except they were more specific about their blue dots on the map that required service. As I said, some of the staff did analysis there.

Mr. Majid Jowhari: Thank you very much.

The Chair: I have a follow-up question to that. These are the most questions I've asked in two years.

You, as a company, SWIFT, are doing this. Would a small city be able to use that model in your place?

● (1705)

Mr. Geoff Hogan: In a small city, there's a business case for the private sector to do the work. We don't see the need to subsidize them.

The Chair: In some cases you don't have a lot of providers going to smaller cities because there's just not that business case. However, if the city were to look at this type of model, not only could they expand their broadband coverage but they could also bring in revenue if they were to sell their services.

Mr. Geoff Hogan: We've had some smaller municipalities in our region do a model where the municipality puts the conduit and the fibre in, and then rents it to providers to provide services.

The Chair: All right, I want to thank everybody for testifying today. It has been very interesting.

This is our last day of testimony, and we will—

Mr. Mike Bossio: Thank you, Chair, for allowing me to be part of this.

The Chair: You're very welcome.

Before we say goodbye to everybody—

Some hon. members: Goodbye everybody.

Mr. David de Burgh Graham: Connection reset by peer.

The Chair: Connection reset by peer? That's a geek thing, isn't it?

Mr. David de Burgh Graham: Ruining the connection.

Some hon. members: Oh, oh!

The Chair: All right.

Thank you all for coming.

Just to remind everybody, next Tuesday we have our technical briefing. We had word back that rather than having the Copyright Board on Thursday, all of the officials coming on Tuesday will be able to speak to what the Copyright Board does. That means that on Thursday we will give our drafting instructions on our broadband study to our analysts, and then we will start to strategize for our review of the Copyright Act after the technical briefings.

Thank you all very much. Have a super-duper weekend.

[*Translation*]

Thank you very much everyone.

[*English*]

We are adjourned.